

# EO 13514 & GSA'S STRATEGIC SUSTAINABILITY PERFORMANCE PLAN

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GSA Facilities Maintenance and Hardware  
Acquisition Center Industry Event

# Today's Agenda



- Why: EO 13514 & Strategic Sustainability Performance Plan requirement
- What: Overview of GSA's & Strategic Sustainability Performance Plan
- How: EO Strategy & Implementation at the Building Level

# Need to Act

- ❑ Energy Policy Act of 2005 (EPAAct 2005)
- ❑ Energy Independence Act of 2007
- ❑ Federal Leadership in High Performance & Sustainable Buildings MOU
- ❑ Executive Order 13423
- ❑ Executive Order 13514



# Executive Order 13514

Set Agency-wide goals for 2020 and restated EO 13423 2015 goals:

- GHG Reduction
- Increased Use of Renewable Resources
- Decreased Fossil Fuel Use
- Low-emitting Vehicles
- Water Efficiency
- Energy Efficiency
- Sustainable Purchasing
- Pollution/Waste Reduction
- High Performance Buildings



# Executive Order 13514



Required agencies to develop, implement and annually update a plan that prioritizes actions based on a positive return on investment for the American taxpayer and to meet energy, water, and waste reduction targets.

= Strategic Sustainability Performance Plan

[http://www.whitehouse.gov/administration/eop/ceq/  
sustainability/plans](http://www.whitehouse.gov/administration/eop/ceq/sustainability/plans)

# Today's Agenda



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# Section 1: Policy & Strategy

## □ GSA Mission

**GSA's mission is to use expertise to provide innovative solutions for our customers in support of their missions and by so doing foster an effective, sustainable, and transparent government for the American people.**

### □ GSA's Mission supported by 3 Strategic Goals:

- Innovation – GSA will be a green proving ground
  - Photovoltaic roof will be installed at the Major General Emmett J. Bean Federal Center in Indianapolis, Indiana. Will also install four different smaller solar panels for comparative evaluation.
  - 6,000 solar panels = 1.8 megawatts of electricity
- Customer Intimacy – GSA will lead and support its customers
- Operational Excellence – GSA will create agency operating conditions that support sustainability

# Section 1: Policy & Strategy



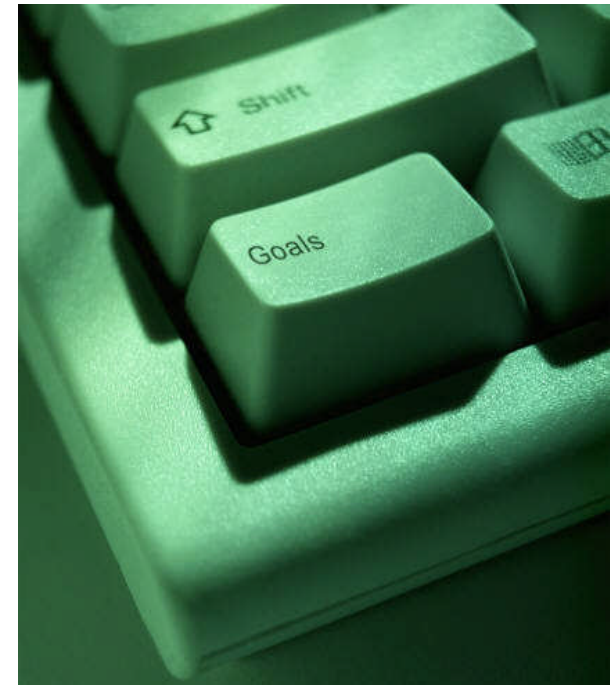
- GSA's Zero Environmental Footprint
  - ▣ GSA will Green its Supply Chain
  - ▣ GSA will Eliminate Waste in its Operations & Activities
  - ▣ GSA will Use its Influence to Reduce the Environmental Impact of the Federal Government

**GSA will exceed the requirements of all environmental and energy statutes, regulations, and Executive Orders, and will use its expertise to help other Federal agencies exceed these standards.**



## Section 2: Performance Review & Annual Update

- Outlines 10 main plan goals & strategies to achieve those goals
- Within each goal, there are the following:
  - ▣ Goal description
  - ▣ Lead for Goal
  - ▣ Implementation Methods
  - ▣ Position
  - ▣ Agency Status
  - ▣ Planning Table



# Plan Goals

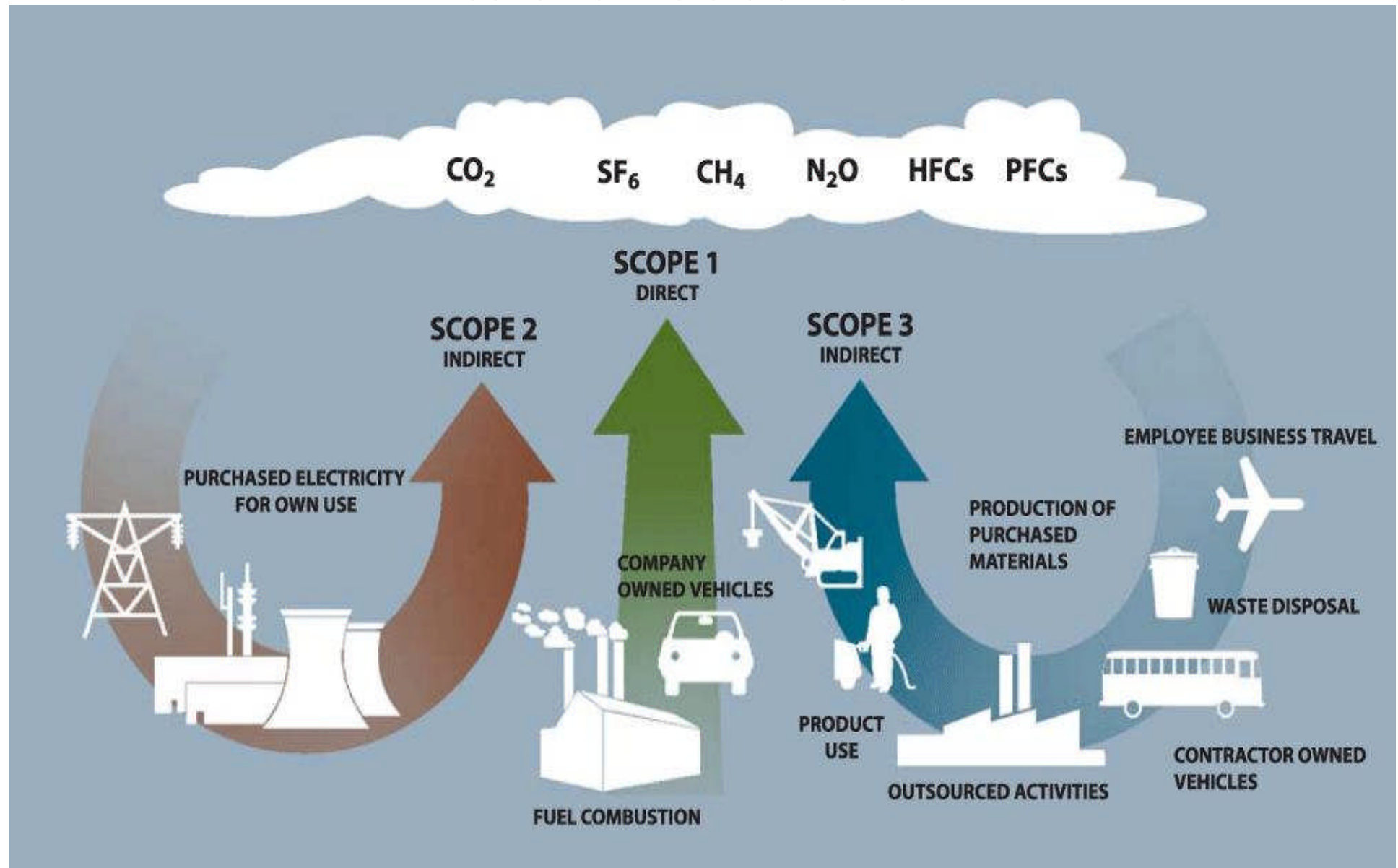
Goals	Actions
Goal 1: Scope 1 &2 Greenhouse Gas Emissions Reductions	Decrease GHG reductions by 28.7% by FY20 from the FY08 baseline. Decrease energy consumption by FY15 30% from the FY03 baseline. Increase renewable energy production and procurement 30% by FY20.
Goal 2: Scope 3 Greenhouse Gas Emissions Reductions	Decrease GHG reductions by 43.9% from the FY08 baseline.
Goal 3: Develop & Maintain Agency Comprehensive Greenhouse Gas Inventory	Perform and maintain GHG inventory
Goal 4: High-Performance Green Buildings & Sustainable Design	Guiding Principles – By FY15, 18% of Existing Buildings & 100% of New Construction
Goal 5: Regional and Local Planning	Consideration for regional and local impacts in construction and transportation planning

# Plan Goals

Goals	Actions
Goal 6: Water Use Efficiency and Management	Decrease potable water consumption by 26% from the FY07 baseline by FY20. Decrease industrial, landscaping, & agricultural water consumption by 20% from the FY10 baseline by FY20.
Goal 7: Pollution Prevention and Waste Elimination	Divert 50% of non-hazardous solid waste & c&d debris from landfills by FY15.
Goal 8: Sustainable Acquisition	FY11, ensure that 95% of new contract actions are environmentally preferable.
Goal 9: Electronic Stewardship & Data Centers	100% of laptops, desktops, & monitors are compliant with ENERGY STAR power management settings, 100% of electronic acquisitions are EPEAT-registered.
Goal 10: Innovation: Vendor & Contractor GHG Emissions	In FY11, GSA will identify mechanisms to incorporate vendor GHG emissions disclosures into the procurement process.

## Goal 1

# Scope 1 & 2 Greenhouse Gas Emissions Reductions



# Goal 1

## Scope 1 & 2 Greenhouse Gas Emissions Reductions

### Goal Description:

- By FY20, GSA will reduce Scope 1 & 2 Greenhouse Gas (GHG) emissions by 28.7% compared to FY 2008 baseline estimates.
  - In FY 2008, GSA produced an estimated 2.4 million tons of carbon from direct (Scope 1 & 2) sources.
- By FY15, GSA will reduce total energy consumption per square foot of space by 30% compared to the FY 2003 baseline.
- GSA will reduce facility energy intensity by an additional 1.5% per year from FY16 through FY20.
- GSA will increase renewable energy production and procurement to 30% of annual energy consumption by FY20.

# Goal 1

## Scope 1 & 2 Greenhouse Gas Emissions Reductions

### Agency Lead for Goal:

- Mark Ewing, Director, Energy Division, Public Buildings Service

### Implementation Methods:

- GSA will continue to implement energy conservation projects in its inventory of owned Federal buildings, based on life-cycle cost effectiveness.
- GSA will increase EISA Energy & Water Evaluations, deploy advanced meters in all covered buildings, & integrate evaluation & metering data into agency decision-making.
  - Conduct Energy & Water Audits & retro-commission 25% of covered facilities every year.
  - Install advanced electricity meters in all covered facilities and all Recovery Act projects by FY12. Natural gas and steam by FY16.

# Goal 1

## Scope 1 & 2 Greenhouse Gas Emissions Reductions

### Implementation Methods, continued:

- GSA will produce and procure 30% of its energy consumption from renewable sources by FY20.
- GSA will design new construction projects & major modernizations to exceed industry standards for energy efficiency.
- All major building modernization projects will consume energy at a level no more than the average BTU/GSF for comparable GSA facilities.
- During FY11, GSA will work with DOE to expand energy & sustainability training for Federal facility managers to adopt a curriculum-based approach.



# Goal 1

## Scope 1 & 2 Greenhouse Gas Emissions Reductions

### Positions:

- GSA's Public Buildings Service currently dedicates 25 full-time equivalents to its Energy Division, which is responsible for the procurement and management of energy and reporting energy consumption.

### Agency Status:

- As of FY09, GSA had reduced energy intensity in covered buildings by 15.4% from the FY03 baseline.  50% of goal
- In FY09, GSA purchased or generated 10.8% of its total electricity from renewable sources.  30% of goal
  - 10 out of 11 regions had electricity contracts in place that required at least 3% renewable energy.
- As of FY09, GSA had installed advanced meters at 209 facilities.



# Goal 1

## Scope 1 & 2 Greenhouse Gas Emissions Reductions

### Planning Table:

The following table reflects GSA's commitment to meeting the Scope 1 & 2 GHG emissions targets and EISA energy reduction goals.

Scope 1 & 2 GHG Emissions Reduction Targets and Resources – Federal Buildings

SCOPE 1 & 2 GHG TARGET	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	....	FY 20
EISA Mandated Energy Reduction Goals (BTU/SF reduced from FY 2003 base year)	15%	18%	21%	24%	27%	30%	hold	...	hold
GSA Planned Energy Intensity Reduction (BTU/SF reduced from FY 2003 base year)	15%	18%	21%	24%	27%	30%	31.5%	...	37.5%
Mandated Renewable Electricity Goals (Percent of electricity from renewable sources)	5%	5%	5%	7.5%	hold	hold	hold	hold	hold
GSA Planned Renewable Electricity Use (Percent of electricity from renewable sources)	10%	12%	14%	16%	18%	20%	22%	...	30%
GSA Scope 1 & 2 Reduction Target (Reduced from FY 2008 base year)	7%	10%	13%	17%	20%	21.3%	22.8%	...	28.7%

# GSA Successes



- ▣ **Reduced Waste in Federal buildings**- GSA is piloting a bio-organic waste disposal system in the National Capital Region.
- ▣ **Practiced Sustainable Design** - 48 LEED Certifications as of June 2010.
- ▣ **Reduced Fuel Consumption in Federal Motor Vehicles** - In FY 2009, GSA used funds provided by the American Recovery and Reinvestment Act (Public Law 111-5, “Recovery Act”) to replace over 17,000 motor vehicles in 21 Federal agencies with newer, more energy efficient motor vehicles.
- ▣ **Practiced Electronic Stewardship to Reduce Energy Consumption** - Ninety-nine percent of GSA electronic assets are ENERGY STAR qualified and EPEAT-registered.

# GSA Challenges

- ▣ **GSA's Sustainability Goals Require Changes in its Customers' Behaviors:**



# GSA Challenges



## ■ Solutions:

- GSA is deploying a variety of initiatives to promote sustainable practices and influence customer behaviors.
- Education and awareness initiatives to reduce energy and water consumption in Federal buildings and leases.
- Advanced utility meters and conducting solid waste audits.
- Development of a comprehensive green purchasing education program.

# Today's Agenda



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# From Agency To Facility

- Use the GSA Strategic Sustainability Performance Plan as a guide
- Create a plan!



# From Strategy to Implementation

- ❑ Establish your Baseline
- ❑ Strategize & Align with your Organization
- ❑ Set Goals
- ❑ Implement Strategies
  - ✓ Use Available Resources
  - ✓ Start w/No Cost & Low Cost
- ❑ Track & Measure
- ❑ Report



# From Strategy To Implementation



- Establish your baseline

- Determine your baseline year (2003) and current energy consumption

- ENERGY STAR Portfolio Manager

- [www.energystar.gov](http://www.energystar.gov) – Free Online Tool!

Energy consumption and Scope 1 GHG (building related)

- Set Goals – Use EO Goals or GSA Goals



# From Strategy To Implementation



- Implementation Strategies
  
- Develop strategies for energy reduction
  - ✓ Energy Audits
  - ✓ Commissioning
  - ✓ Published Resources

[www.energystar.gov/challengekit](http://www.energystar.gov/challengekit)

# Energy Audit Case Study

- 10% Reduction in energy costs in Year 1
- Total Project Cost = \$45,445
  - ▣ \$16,800 for Energy Audit
  - ▣ \$28,645 on Energy Conservation Measures
- \$365,000 Total Savings

Year	Annual Energy Costs	ENERGY STAR Rating
2007	\$1,287,769	63
2008	\$1,161,042	70
2009	\$1,050,303	77
<b>\$365,000 in Baseline Savings*</b>		

\* Savings calculated assuming a constant 2007 energy cost over 2008 and 2009.

Received ENERGY STAR Label in 2009



# From Strategy To Implementation



- Implementation Strategies
- Develop strategies for GHG reduction
  - ✓ GSA Carbon Footprint and Green Procurement Tool  
[www.carbonfootprint.gsa.gov](http://www.carbonfootprint.gsa.gov)
  - ✓ ENERGY STAR Portfolio Manager  
[www.energystar.gov/challengekit](http://www.energystar.gov/challengekit)
- Everything you do to decrease energy consumption will decrease GHG!

# From Strategy To Implementation

## □ Track & Measure

The implementation methods and tasks will be monitored and tracked in the following manner:

Data	Metric	Tracking Tool	Reporting Frequency	Report To
Energy consumption (electricity and natural gas)	kBTU (EUI)	Portfolio Manager	Monthly	Property Manager
ENERGY STAR Partner – Highlight achievements	10% decrease in EUI	Portfolio Manager	Semi-Annual	OMB
Energy conservation initiatives	Number of initiatives implemented	Excel spreadsheet	Monthly	Property Manager
Energy Education Campaign	Number of initiatives completed	Excel spreadsheet	Monthly	Property Manager
Energy, water audits, and retro-commissioning	Completion status	Excel spreadsheet	Semi-Annual	OMB
Electric vehicle purchases	Number of vehicles Purchased	Excel spreadsheet	Semi-Annual	OMB
Renewable energy initiatives	Number of initiatives implemented	Excel spreadsheet	Semi-Annual	OMB

# From Strategy To Implementation

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- Report & Celebrate
- Share Your Successes
  - ▣ No Matter How Small!



# What Can You Do?

- Educate Yourself
  - ▣ GSA training
- Champions
  - ▣ Energy champions
  - ▣ Guiding Principle champions
- Task Forces
- Employee Challenges
  - ▣ Whatzamawhoozit

GSA Acquisition (Advantage)  
Training Conference and Expo  
[expo.gsa.gov/index](http://expo.gsa.gov/index)

FedFleet - [www.fedfleet.org](http://www.fedfleet.org)

SmartPay<sup>®</sup> Conference -  
[gsasmartpayconference.org/home.asp](http://gsasmartpayconference.org/home.asp)

govGreen - [www.govgreen.org](http://www.govgreen.org)

govEnergy - [www.govenergy.com](http://www.govenergy.com)

EO Workshop – May 2011  
[www.feapc.com](http://www.feapc.com)

# Questions

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